

**EXAMPLE SCENARIO 1
Option 2**

TABLE 4.1.RME
VALUES USED FOR DAILY INTAKE CALCULATIONS
REASONABLE MAXIMUM EXPOSURE
The Dean Company

Scenario Timeframe: Future
Medium: Solid Waste
Exposure Medium: Solid Waste

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name
Ingestion	Receptor Population	Age 1	Slag Piles 1, 2, 3 (1)	CS	Chemical Concentration in Slag	See Table 3.1	mg/kg	See Table 3.1	Chronic Daily Intake (CDI) (mg/kg-day) = CS x IR x FI x EF x ED x CF1 x 1/BW x 1/AT
				IR	Ingestion Rate of Slag	100	mg/day	EPA, 1991	
				FI	Fraction Ingested	1	--	Professional Judgment	
				EF	Exposure Frequency	350	days/year	EPA, 1991	
				ED	Exposure Duration	24	years	EPA, 1991	
				CF1	Conversion Factor	1E-06	kg/mg	--	
				BW	Body Weight	70	kg	EPA, 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA, 1989	
				AT-N	Averaging Time - Non-Cancer	8,760	days	EPA, 1989	
Dermal	Receptor Population	Age 1	Slag Piles 1, 2, 3 (1)	CS	Chemical Concentration in Slag	See Table 3.1	mg/kg	See Table 3.1	Dermal Absorbed Dose (DAD) (mg/kg-day) = DA-event x EF x ED x EV x SA X 1/BW x 1/AT where Absorbed Dose per Event (DA-event) (mg/cm2-event) = CS x CF1 x AF x ABS-d
				CF1	Conversion Factor	1E-06	kg/mg	--	
				SA	Skin Surface Area Available for Contact	5,700	cm2	EPA, 2001	
				AF	Soil to Skin Adherence Factor	0.19	mg/cm2-event	EPA, 2001	
				ABS-d	Absorption Factor	chemical-specific	unitless	EPA, 2001	
				EV	Event Frequency	1	events/day	EPA, 2001	
				EF	Exposure Frequency	350	days/year	EPA, 2001	
				ED	Exposure Duration	24	years	EPA, 1991	
				BW	Body Weight	70	kg	EPA, 2001	
				AT-C	Averaging Time - Cancer	25,550	days	EPA, 2001	
				AT-N	Averaging Time - Non-Cancer	8,760	days	EPA, 2001	

(1) Parameters for Slag Piles 2 and 3 are identical to Slag Pile 1, and are therefore not repeated.

EPA 1989: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual, Part A. OERR EPA/540/1-89/002.

EPA 1991: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER 9285.6-03.

EPA 1995: Assessing Dermal Exposure from Soil, Technical Guidance Manual, Region III, EPA/903-K-95-003.

EPA 1997: Exposure Factors Handbook, Volume 1. EPA/600/P-95/002Fa.

EPA 2001: Risk Assessment Guidance for Superfund. Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment) Interim.

NA = Not Available